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9-27-02
Case JA-138

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of :
EBRAHIM REZAI ET AL. :
Serial No. 09/171,049 : Group Art Unit 1771
Filed October 12, 1998 : Examiner: C. Pratt
For: ABSORBENT ARTICLES HAVING :
IMPROVED STRUCTURAL :
STABILITY IN DRY AND WET :
STATES AND MAKING :
METHODS THEREFOR :

RESPONSE TO OFFICE ACTION DATED
JUNE 19, 2002

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

In response to the Office Action dated June 19, 2002, Applicants hereby submit the following Response.

REMARKS

Applicants' Agent wishes to thank the Examiner for examining the above-identified Application. Claims 1-19 and 39-41 are pending in the Application. Claims 1-19 and 39-41 have been rejected.

This response fully addresses each and every issue raised in the Office Action dated June 19, 2002. A detailed discussion of each issue is provided in the sections which follow.

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The Examiner's 35 USC § 112 Rejection

The Examiner has rejected the pending claims as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner states: "claim 1 is indefinite because of the phrase "dry state". Does this term refer to the state of the fibers or the state of the gelling particles? What is the intended meaning of the word "dry?" Does it refer to lack of liquid?"

A definition for "dry" does appear at page 4, beginning at line 32. A definition for "Wet" is also given and I have duplicated them below:

"'Dry State' means the state of the absorbent material during manufacture.

'Wet State' means the swollen absorbent materials due to absorption of large quantities of liquids such as water, body fluids, industrial fluids and household fluids, when the absorbent materials of the present invention are used in, e.g., a diaper and worn."

One of skill in the art would, based on these definitions understand the use of the term in the claim.

The Examiner's 35 USC § 103 Rejection

Claims 1-19 and 39-41 have been rejected under 35 U.S.C. 103 as being unpatentable over Wang, et al. (5849405) in view of Goldman, et al. (5669894), and Anjur, et al. (5645542), as set forth in the previous Office Action. The Examiner has reiterated the contention that it would have been obvious to one having skill in the art at the time the invention was made to utilize microfibers to bind an absorbent gelling particle to a carrier layer. Applicants respectfully traverse this rejection.

Wang

Wang discloses an absorbent material comprising a mixture of (1) a plurality of absorbent gelling particles comprising a water-insoluble, water-swellaable polymer and (2) an absorbent property modification polymer reactive with at least one component included in a urine.

As pointed out in previous responses, the abstract of Wang states: " When a urine is applied to the absorbent material, the absorbent gelling particles are spontaneously connective through the absorbent property modification polymer. The absorbent material

has at least one of the improved absorbent properties **after swelling** such as (1) liquid permeability, (2) porosity, (3) wet integrity, and (4) recovery property when subjected to external forces.” (Emphasis mine)

The component of Wang, which contributes significantly to the “spontaneous connectivity” of the absorbent gelling materials, is the “absorbent property modification polymer, which is reactive with at least one component included in urine”. It is this polymer rather than a glue microfiber, which aids in the connectivity and integrity of the Wang absorbent core.

Applicants continue to assert that it is the intent of the instant invention that its absorbent article have improved structural stability in the wet and the dry states, so that not only is there wet integrity but also an inhibition of the shifting of absorbent gelling particles (hydrogel-forming polymer) during the shipping and storage which occur prior to use. There is no provision in Wang for such an inhibition, nor is there anything in Wang, with its modification polymer” which would lead one of skill in the art to the instant structures.

Goldman

This citation discloses absorbent members useful in the containment of body fluids such as urine, that have at least one region containing hydrogel-forming absorbent polymer in a concentration of from 60 to 100% by weight and providing a gel-continuous fluid transportation zone when in a swollen state. The region, where this hydrogel-forming absorbent polymer is present has, even when subjected to normal use conditions, sufficient wet integrity such that the gel-continuous zone substantially maintains its ability to acquire and transport body fluids through the gel-continuous zone.

The Examiner points out that column 30, lines 21-24 discuss the use of adhesive to ensure wet integrity of an absorbent core. However, the citation is discussing combining 60-100% hydrogel-forming absorbent polymer with other components including fibers and adhesive to glue the mass together to provide wet integrity. There is no contemplation of adhering any portion of the core to a carrier layer. Instead the core material is adhered together using, as one possibility, which is mentioned, glue microfibers. Applicants are not claiming the discovery of glue microfibers, but rather the particular use of the glue microfibers to adhere hydrogel-forming materials to a carrier layer.

The Examiner states: "Goldman is concerned with the creation of an absorbent material comprising absorbent gelling particles, a glue, and a carrier layer". This is an accurate description of the statement at column 30, lines 53-56 which says: "The absorbent member can also be formed such that the polymer is contained or encapsulated by gluing with a wet stable glue or otherwise bonded in a wet stable manner to the layer of layers of tissue around the periphery of the polymer containing region."

However, there is no intention in the citation to combine the statement at column 30, lines 21-24 with the statement at column 30, lines 53-56. In other words, the mention of the glue microfibers, at lines 21-24, relates to adherence of the core materials together. The statement at lines 53-56 relates to adhering the polymer to a tissue layer with a wet stable glue. There is nothing in the citation, including at column 30, lines 53-56, which suggests that glue microfibers, specifically melt-blown glue microfibers, would function effectively in gluing the hydrogel to a carrier layer.

Anjur

Lastly, the Examiner asserts that, in combination with the references above, Anjur renders the instant invention obvious. However, as Applicant has stated before, the styrene-isoprene-styrene fibers used in the cited absorbent structure are 1) not microfibers, 2) have not been subjected to treatment to render them tacky. Therefore, the styrene-isoprene-styrene fibers of Anjur would not function as do the instant microfibers. Why would one of skill in the art look to Anjur for a means to provide wet and dry stability? And if one did, would it occur to him or her, based on a reading of Anjur to produce tacky microfibers from the SIS fibers?

CONCLUSION

As Applicants have pointed out, the MPEP 2143 states, "To establish a prima facie case of obviousness, three basic criteria are to be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally the prior art reference(or references when combined) must teach or suggest all the claim limitations." Applicants assert that these criteria are not met by the references combined by the Examiner.

As previously pointed out by Applicants, the Federal Circuit in *In re Fritch* 972 F.2d 1260, 23 USPQ2d 1780 (Fed.Cir. 1992) noted that "it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art, so that the claimed invention is rendered obvious....This court has previously stated that [o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." Applicant respectfully suggests that the Examiner is, in this case, using hindsight reconstruction and, following a reading of the instant specification, has chosen three references which disclose various isolated elements of the instant invention to render the instant application obvious.

Wang teaches an absorbent core with hydrogel-forming polymers treated with a "modification polymer" to ensure spontaneous connectivity of the voids through which the urine is distributed throughout the absorbent web. Wang mentions that the absorbent materials can be "attached" to a substrate web (col. 16, lines 39-43). Again Wang mentions that, among many other components "glues" can be present in mixtures with the hydrogel forming absorbent polymers. (column 13, lines 28-32). However, there is no intention in Wang to use the glues mentioned in column 13 to attach the absorbent materials to a web, rather the function of any glue used is stated to ensure that the hydrogel-forming polymer and the non-hydrogel forming polymer are not readily physically separated.

Goldman contemplates the use of microfiber glues to provide a core with integrity within itself (column 30, lines 21-24) and in another context, states that "wet stable glue" can be used to adhere hydrogel-forming polymers to a tissue layer, (col. 30, lines 53-56).

Anjur contemplates the use, in a disposable diaper, of styrene-isoprene-styrene fibers, which are not microfibers and are not tacky.

There is no suggestion or motivation to combine these references or to modify them to produce the instant structures. There is nothing in these three references to suggest such a combination would be successful. Lastly, even in combination, these three references do not suggest all the limitations of instant claim 1.

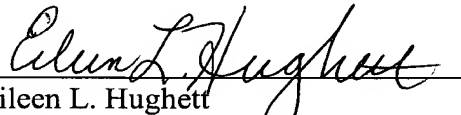
For the foregoing reasons, Applicants respectfully submit that this applied reference combination does not render Claims 1-19 and 39-41 unpatentably obvious under 35 U.S.C. 103. The rejection of these claims should be withdrawn. Accordingly,

favorable reconsideration of Claims 1-19 and 39-41 is earnestly solicited in the form of a Notice of Allowance.

Should any issues regarding this Application remain unresolved, the Examiner is encouraged to contact the undersigned by telephone at the earliest possible date to achieve a timely resolution.

Respectfully submitted

FOR: E. REZAI ET AL.

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